# **Section 1. Registration Information**

#### Source Identification

Facility Name: Linden LPG Storage Facility
Parent Company #1 Name: Public Service Enterprise Group

Parent Company #2 Name: Pubic Service Electric and Gas Company

#### Submission and Acceptance

Submission Type: Re-submission

Subsequent RMP Submission Reason: 5-year update (40 CFR 68.190(b)(1))

Description:

Receipt Date: 12-Dec-2019
Postmark Date: 12-Dec-2019
Next Due Date: 12-Dec-2024
Completeness Check Date: 25-Jul-2022
Complete RMP: Yes

De-Registration / Closed Reason:

De-Registration / Closed Reason Other Text:

De-Registered / Closed Date:

De-Registered / Closed Effective Date:

Certification Received: Yes

## **Facility Identification**

EPA Facility Identifier: 1000 0016 4537

Other EPA Systems Facility ID: Facility Registry System ID:

#### **Dun and Bradstreet Numbers (DUNS)**

Facility DUNS:

Parent Company #1 DUNS: 6973812

Parent Company #2 DUNS:

### **Facility Location Address**

Street 1: South Wood Avenue

Street 2:

City: Linden
State: NEW JERSEY
ZIP: 07036

ZIP: ZIP4:

County: UNION

## Facility Latitude and Longitude

Latitude (decimal): 40.621319 Longitude (decimal): -074.213025

Lat/Long Method: Interpolation - Digital map source (TIGER)

Lat/Long Description: Plant Entrance (General)

Horizontal Accuracy Measure: 5

Horizontal Reference Datum Name: World Geodetic System of 1984

Source Map Scale Number:

Trend Cooden Cyclem of 1001

Owner or Operator

Operator Name: Public Service Electric and Gas Co

Operator Phone: (973) 248-7513

Mailing Address

Operator Street 1: 2000 Frank E. Rogers Blvd.

Operator Street 2:
Operator City:

Operator City: Harrison
Operator State: NEW JERSEY
Operator ZIP: 07029

Operator ZIP4:

Operator Foreign State or Province:

Operator Foreign ZIP: Operator Foreign Country:

Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person: Elizabeth Gamboa

RMP Title of Person or Position: Manager-M&R Stations and Gas Plants

RMP E-mail Address: Elizabeth.Gamboa@pseg.com

**Emergency Contact** 

Emergency Contact Name: Elizabeth Gamboa
Emergency Contact Title: Manager M&R Plants
Emergency Contact Phone: (973) 248-7513
Emergency Contact 24-Hour Phone: (732) 537-5875

Emergency Contact Ext. or PIN:

Emergency Contact E-mail Address: Elizabeth.Gamboa@pseg.com

Other Points of Contact

Facility or Parent Company E-mail Address:

Facility Public Contact Phone:

Facility or Parent Company WWW Homepage

Address:

www. PSEG. com

Local Emergency Planning Committee

LEPC: Linden City OEM

Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site: 0

FTE Claimed as CBI:

Covered By

OSHA PSM: Yes

EPCRA 302 : CAA Title V:

Facility Name: Linden LPG Storage Facility EPA Facility Identifier: 1000 0016 4537

Plan Sequence Number: 1000084105

Air Operating Permit ID:

#### **OSHA** Ranking

OSHA Star or Merit Ranking:

### Last Safety Inspection

Last Safety Inspection (By an External Agency)

Date:

Last Safety Inspection Performed By an External

Agency:

05-Jun-2019

State environmental agency

#### **Predictive Filing**

Did this RMP involve predictive filing?:

### **Preparer Information**

Preparer Name:

Preparer Phone: Preparer Street 1:

Preparer Street 1.

Preparer Street 2: Preparer City:

Preparer State:

Preparer ZIP:

Preparer ZIP4:

Preparer Foreign State:

Preparer Foreign Country:

Preparer Foreign ZIP:

TRC Environmental Corporation

(201) 933-5541

1200 Wall Street West

Lyndhurst

NEW JERSEY

07071

## Confidential Business Information (CBI)

CBI Claimed:

Substantiation Provided:

Unsanitized RMP Provided:

#### Reportable Accidents

Reportable Accidents:

See Section 6. Accident History below to determine if there were any accidents reported for this RMP.

#### **Process Chemicals**

Process ID: 1000105030
Description: Propane Storage
Process Chemical ID: 1000131525

Program Level: Program Level 3 process

Chemical Name: Propane
CAS Number: 74-98-6
Quantity (lbs): 3326400

CBI Claimed:

Flammable/Toxic: Flammable

## **Process NAICS**

Process ID: 1000105030
Process NAICS ID: 1000106381

Program Level: Program Level 3 process

NAICS Code: 22121

NAICS Description: Natural Gas Distribution

Facility Name: Linden LPG Storage Facility EPA Facility Identifier: 1000 0016 4537

Plan Sequence Number: 1000084105

# **Section 2. Toxics: Worst Case**

Facility Name: Linden LPG Storage Facility EPA Facility Identifier: 1000 0016 4537

Plan Sequence Number: 1000084105

# **Section 3. Toxics: Alternative Release**

# **Section 4. Flammables: Worst Case**

Flammable Worst ID: 1000063143

Model Used:

Endpoint used:

EPA's OCA Guidance Reference Tables or

Equations

1 PSI

Passive Mitigation Considered

Blast Walls: Other Type:

# Section 5. Flammables: Alternative Release

Flammable Alter ID: 1000059237

Model Used: EPA's OCA Guidance Reference Tables or

Equations

Passive Mitigation Considered

Dikes:

Fire Walls: Blast Walls:

Enclosures:

Other Type: Tank Insulation

**Active Mitigation Considered** 

Sprinkler System:

Deluge System:

Water Curtain:

**Excess Flow Valve:** 

Other Type:

# **Section 6. Accident History**

Facility Name: Linden LPG Storage Facility EPA Facility Identifier: 1000 0016 4537

Plan Sequence Number: 1000084105

# Section 7. Program Level 3

## Description

Propane Storage Prevention Program

## Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID: 1000110857 Chemical Name: Propane Flammable/Toxic: Flammable CAS Number: 74-98-6

Process ID: 1000105030 Description: Propane Storage Prevention Program Level 3 ID: 1000089058 NAICS Code: 22121

#### Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):

16-Nov-2021

## Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):

20-Oct-2021

## The Technique Used

What If: Checklist:

What If/Checklist: Yes HAZOP: Yes Failure Mode and Effects Analysis: Yes Yes Fault Tree Analysis:

Other Technique Used:

PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):

20-Oct-2021

#### Major Hazards Identified

Toxic Release:

Fire: Yes Explosion: Yes

Runaway Reaction: Polymerization:

Overpressurization: Yes Corrosion: Yes Overfilling: Yes

Contamination:

**Equipment Failure:** Yes

Loss of Cooling, Heating, Electricity, Instrument Air:

Facility Name: Linden LPG Storage Facility		
EPA Facility Identifier: 1000 0016 4537 Plan Sequence Number: 1000084		
E	Earthquake:	
	Floods (Flood Plain):	
٦	Fornado:	
H	Hurricanes:	
(	Other Major Hazard Identified:	
Process Controls in Use		
\	Vents:	
	Relief Valves:	Yes
	Check Valves:	Yes
	Scrubbers:	
	Flares:	
N	Manual Shutoffs:	Yes
	Automatic Shutoffs:	Yes
	nterlocks:	
	Alarms and Procedures:	Yes
ŀ	Keyed Bypass:	
	Emergency Air Supply:	
	Emergency Power:	Yes
	Backup Pump:	Yes
	Grounding Equipment:	Yes
	nhibitor Addition:	
F	Rupture Disks:	
	Excess Flow Device:	Yes
(	Quench System:	
	Purge System:	
1	None:	
(	Other Process Control in Use:	
Mitigation Systems in Use		
5	Sprinkler System:	
Ι	Dikes:	
	Fire Walls:	
	Blast Walls:	
[	Deluge System:	
	Water Curtain:	
	Enclosure:	
	Neutralization:	
	None:	
(	Other Mitigation System in Use:	LPG storage tank fire protection coating
Monitoring/Detection Systems in Use		
	Dunner Aven Detectors	Vaa
	Process Area Detectors:	Yes
	Perimeter Monitors:	Yes
	None:	
(	Other Monitoring/Detection System in Use:	

## Changes Since Last PHA Update

Reduction in Chemical Inventory: Increase in Chemical Inventory: Change Process Parameters:

Installation of Process Controls:

Installation of Process Detection Systems: Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

None Recommended:

None:

Other Changes Since Last PHA or PHA Update: Static ground signal system 7/20/2011

## **Review of Operating Procedures**

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):

16-Nov-2021

#### Training

Training Revision Date (The date of the most recent 16-Nov-2021 review or revision of training programs):

### The Type of Training Provided

Classroom: Yes On the Job: Yes

Other Training:

## The Type of Competency Testing Used

Written Tests: Oral Tests:

Demonstration: Yes
Observation: Yes

Other Type of Competency Testing Used:

#### Maintenance

Maintenance Procedures Revision Date (The date of 22-Nov-2021 the most recent review or revision of maintenance procedures):

Equipment Inspection Date (The date of the most recent equipment inspection or test):

27-Sep-2021

Equipment Tested (Equipment most recently inspected or tested):

Propane tanks, piping and valves

## Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):

06-Nov-2019

Change Management Revision Date (The date of the most recent review or revision of management of change procedures):

## **Pre-Startup Review**

Pre-Startup Review Date (The date of the most recent pre-startup review):

05-Nov-2019

## **Compliance Audits**

Compliance Audit Date (The date of the most recent 14-Apr-2021 compliance audit):

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):

14-Apr-2021

## **Incident Investigation**

Incident Investigation Date (The date of the most recent incident investigation (if any)):

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

## **Employee Participation Plans**

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):

14-Apr-2021

#### Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most 14-Apr-2021 recent review or revision of hot work permit procedures):

## **Contractor Safety Procedures**

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):

14-Apr-2021

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):

14-Apr-2021

#### **Confidential Business Information**

CBI Claimed:

# **Section 8. Program Level 2**

Facility Name: Linden LPG Storage Facility EPA Facility Identifier: 1000 0016 4537

Plan Sequence Number: 1000084105

# **Section 9. Emergency Response**

## Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?):

Facility Plan (Does facility have its own written emergency response plan?):

Yes

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):

Yes

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?):

Yes

Healthcare (Does facility's ER plan include information on emergency health care?):

Yes

#### **Emergency Response Review**

Review Date (Date of most recent review or update 19-Nov-2020 of facility's ER plan):

#### **Emergency Response Training**

Training Date (Date of most recent review or update 19-Nov-2020 of facility's employees):

#### Local Agency

Agency Name (Name of local agency with which the Linden OEM facility ER plan or response activities are coordinated):

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated):

(908) 486-3500

## Subject to

OSHA Regulations at 29 CFR 1910.38:

OSHA Regulations at 29 CFR 1910.120:

Yes

Clean Water Regulations at 40 CFR 112:

RCRA Regulations at CFR 264, 265, and 279.52:

OPA 90 Regulations at 40 CFR 112, 33 CFR 154,

49 CFR 194, or 30 CFR 254:

State EPCRA Rules or Laws:

Other (Specify):

# **Executive Summary**

**Executive Summary** 

The Public Service Electric and Gas Company (PSE&G) Linden Liquid Petroleum Gas (LPG) Storage Plant has a long-standing commitment to worker and public safety. This commitment is demonstrated by the resources invested in risk management programs, such as training personnel and considering safety in the design, installation, operation and maintenance of processes. The policy is to implement reasonable controls to prevent foreseeable accidents. However, if an accidental release does occur, PSE&G gas plant trained personnel will respond to control and contain the release and contact outside responders, as needed.

#### 1.0 Description of the Stationary Source and Regulated Substances

The PSE&G Linden LPG Storage Plant is located in the city of Linden, New Jersey. It is situated in the northwest section of 40 acres of property. It was established in 1974 as an ancillary unit to the Synthetic Natural Gas Plant that was closed in 1989 and demolished in 1998. Operations at the facility can be classified using Standard Industrial Classification (SIC) Code 4925 or North American Industry Classification System (NAICS) Code 22121 (Mixed, Manufactured, or Liquefied Petroleum Gas Production and/or Distribution).

Operations at the plant consist of LPG storage tanks. The Linden LPG Storage Plant only occasionally has truck deliveries for filling and removal of LPG. The only operations that occur at the Plant involve the storage and transfer of LPG. LPG is composed of primarily propane (>90% by weight) as detailed in the Material Safety Data Sheets (MSDS). Therefore, all references to LPG or propane refer to the same substance unless otherwise specified.

#### 2.0 Prevention Program

The elements presented in the following section incorporate the required elements as presented in 40 CFR 68 Subpart D.

#### 2.1 Process Safety Information (40 CFR 68.65)

The PSE&G Linden LPG Storage Plant maintains several technical documents used to promote safe operation of the process. These documents address the chemical properties of LPG and associated hazards, limits for process parameters, LPG inventories and equipment design basis/configuration information. Specific personnel are assigned responsibility for maintaining up-to-date process safety information. Due to the nature of operations at the facility, minimal documentation is needed to satisfy these requirements.

LPG-specific information, including exposure hazards and emergency response/exposure treatment considerations, is provided in material safety data sheets (MSDSs). The plant also maintains technical documents that provide information about the design and construction of process equipment.

#### 2.2 Process Hazard Analysis (40 CFR 68.67)

The PSE&G Linden LPG Storage Plant has a comprehensive program to help ensure that hazards associated with the various processes are identified and controlled. Within this program, the LPG storage and transfer process is systematically examined to identify hazards and ensure that adequate controls are in place to manage these hazards.

The PSE&G Linden LPG Storage Plant has used the What-If? / Checklist analysis technique to perform these evaluations. This technique has been deemed appropriate based upon the selection process presented in "Guidelines for Hazard Evaluation Procedures" (Center for Chemical Process Safety, 1992). The analyses are conducted using a team of people who have operating and maintenance experience as well as engineering expertise. This team identifies and evaluates hazards of the process as accident prevention and mitigation measures and the team makes suggestions for additional prevention and/or mitigation measures when the team believes such measures are necessary.

#### 2.3 Operating Procedures (40 CFR 68.69)

The PSE&G Linden LPG Storage Plant maintains written procedures that address various modes of process operations, such as (1)

unit startup, (2) normal operations, (3) temporary operations, (4) emergency shutdown, (5) normal shutdown, and (6) initial startup of a new process. Due to the nature of operations at the Linden LPG Storage Plant, not all of these modes of operation are applicable. These procedures can be used as a reference by experienced operators and provide a basis for consistent training of new operators. The procedures are periodically reviewed and annually certified as current and accurate. The procedures are kept current and accurate by revising them as necessary to reflect changes made through the management of change process.

## 2.4 Training (40 CFR 68.71)

PSE&G implements an initial and refresher training program for all personnel assigned to operations at the Storage Plant. The program includes technical training using plant-specific process information and operating procedures, as well as technical publications from the LP gas industry. Operators are required to successfully complete competency testing including classroom and observed field operations prior to being qualified. Refresher training for all assigned operators is provided via detailed review and simulation of operating procedures at the Storage Plant. Operator refresher training is completed and documented at least every three years.

#### 2.5 Mechanical Integrity (40 CFR 68.73)

The PSE&G Linden LPG Storage Plant has well-established practices and procedures to maintain pressure vessels, piping systems, relief and vent systems, controls, pumps, compressors and emergency shutdown systems in a safe operating condition. The basic aspects of this program include: (1) conducting training, (2) developing and/or implementing written procedures, (3) performing inspections and tests, (4) correcting identified deficiencies and (5) applying quality assurance measures. In combination, these activities form a system to maintain the mechanical integrity of the process.

#### 2.6 Management of Change (40 CFR 68.75)

The Linden LPG Storage Plant has a system to manage changes to the LPG storage process. This system requires that changes to items such as process equipment, chemical technology (including process operating conditions), procedures, and other facility changes be properly reviewed and authorized before implementation. Changes are reviewed to (1) ensure that adequate controls are in place to manage any new hazards and (2) verify that existing controls have not been compromised by the change. Affected chemical hazard information, process operating limits, and equipment information, as well as procedures, are updated to incorporate changes. In addition, operating and maintenance personnel are provided any necessary training on the change.

#### 2.7 Pre-Startup Safety Review (40 CFR 68.77)

PSE&G conducts a Pre-Startup Safety Review (PSSR) for any facility modification that requires a change in the process safety information for the LPG storage process. The purpose of the PSSR is to ensure safety features, procedures, personnel, and equipment are appropriately prepared for startup prior to placing the equipment into service. This review provides one additional check to make sure construction is in accordance with the design specifications and all supporting systems are operationally ready and serves a quality assurance function by requiring verification that accident prevention program requirements are properly implemented.

#### 2.8 Compliance Audit (40 CFR 68.79)

To help ensure that the accident prevention program is functioning properly, the gas plant periodically conducts an audit to determine whether the procedures and practices required by the Risk Management Program are being implemented. Compliance audits are conducted at least every three years. The audit team develops findings that are forwarded to gas plant management for resolution. Corrective actions taken in response to the audit team's findings are tracked until they are complete. The final resolution of each finding is documented, and the two most recent audit reports are retained.

#### 2.9 Incident Investigation (40 CFR 68.81)

The Linden LPG Storage Plant promptly investigates all incidents that resulted in, or reasonably could have resulted in, a fire/explosion, gas release, major property damage or personal injury. The goal of each investigation is to determine the facts and develop corrective actions to prevent a recurrence of the incident or a similar incident. The investigation team documents its

findings, develops recommendations to prevent a recurrence, and forwards these results to gas plant management for resolution. The incident investigation team will begin investigating no later than 48 hours following the incident and summarize the investigation in a report. Corrective actions taken in response to the investigation team's findings and recommendations are tracked until they are complete. The final resolution of each finding or recommendation is documented, and the investigation results are reviewed with all employees (including contractors) who could be affected by the findings. Incident investigation reports are retained for at least five years so that the reports can be reviewed during future PHAs and PHA revalidations.

#### 2.10 Employee Participation (40 CFR 68.83)

PSE&G encourages employees to participate in all facets of the Risk Management Program. Examples of employee participation range from updating and compiling technical documents and chemical information to participating as a member of a process hazard analysis (PHA) team. Employees have access to information created as part of the Risk Management Program. In addition, the plant has a number of initiatives that addresses risk management and employee safety issues. These initiatives include forming teams to promote both process and personal safety. The teams have members from various areas of the plant, including operations, maintenance, engineering, and plant management.

All PSE&G employees assigned to work at the Linden LPG Storage Plant will have access to the Program Manual which is located in the Metering & Regulating (M&R) office at the Linden LPG Storage Plant site and at the main office of the Harrison Gas Plant.

#### 2.11 Safe Work Practices-Including Hot Work Permits (40 CFR 68.85)

The PSE&G Linden LPG Storage Plant has long-standing safe work practices in place to help ensure worker and process safety. Examples of these include (1) a lockout/tagout procedure to ensure isolation of energy sources for equipment undergoing maintenance, (2) a procedure for safe removal of hazardous substances before process piping or equipment is opened, (3) a permit and procedure to control spark-producing activities (i.e., hot work), and (4) a permit and procedure to ensure that adequate precautions are in place before entry into a confined space. PSE&G M&R tagging supplemented by gas plant-specific procedures and hot work procedures, along with training of affected personnel, form a system to help ensure that operations and maintenance activities are performed safely.

#### 2.12 Contractors (40 CFR 68.87)

The PSE&G Linden LPG Storage Plant uses contractors to supplement its workforce during periods of increased maintenance or construction activities. Because some contractors work on or near process equipment, the gas plant has procedures in place to ensure that contractors (1) perform their work in a safe manner, (2) have the appropriate knowledge and skills, (3) are aware of the hazards in their workplace, (4) understand what they should do in the event of an emergency, (5) understand and follow site safety rules and (6) inform gas plant personnel of any hazards that they find during their work. This is accomplished by providing contractors with (1) a process overview, (2) information about safety and health hazards, (3) emergency response plan requirements and (4) safe work practices prior to their beginning work. In addition, the PSE&G Linden LPG Storage Plant evaluates contractor safety programs and performance during the selection process. Gas plant personnel periodically monitor contractor performance to ensure that contractors are fulfilling their safety obligations.

Contractors are required to implement health and safety programs that protect their employees, comply with appropriate laws, regulations, codes, industry standards and local requirements and minimize risks to PSE&G employees. Prior to employing an outside contractor to perform maintenance, repair, major renovation, or specialty work management evaluates the contractors' safety performance and programs. Contract employees are informed of the potential hazards such as fire and explosion that is related to their work. They are made aware of emergency action plans and procedures. This information is documented and maintained. All contract employees follow the safe work practices of the facility.

A daily contractor log is maintained on site that is located in the LPG Operators Office. This log documents the presence and exit of contract employees. A record of all contractor illness and injuries related to work in the process area also being maintained.

#### 3.0 Five Year Accident History

The PSE&G Linden LPG Storage Plant has an excellent record of accident prevention over the last 5 years (2014-2018 inclusive).

The facility has not had an accidental release of propane in the last 5 years (2014-2018 inclusive). If an accidental release occurs, PSE&G would investigate every incident very carefully to determine ways to prevent similar incidents from recurring.

#### 4.0 Emergency Response Program Summary

The PSE&G Linden LPG Storage Plant maintains a written emergency response program, which is in place to protect worker and public safety as well as the environment. The program consists of procedures for responding to a release of a regulated substance, including the possibility of a fire or explosion if a flammable substance is accidentally released. The procedures address all aspects of emergency response, including: (1) proper first aid and treatment for exposures, (2) evacuation plans and accounting for personnel after an evacuation, (3) notification of local emergency response agencies and the public if a release occurs, and (4) post-incident cleanup and decontamination requirements. In addition, the plant has procedures that address maintenance, inspection, and testing of emergency response equipment, as well as instructions that address the use of emergency response equipment. Employees receive training in these procedures as necessary to perform their specific emergency response duties. The emergency response program is updated when necessary based on modifications made to gas plant processes or other PSE&G Linden LPG Storage Plant facilities. The emergency response program changes are administered through the management of change process, which includes informing and/or training affected personnel in the changes.

The emergency response program for the PSE&G Linden LPG Storage Plant is coordinated with the Linden Fire Department. This coordination includes periodic meetings of the Linden Fire Department, which includes local emergency response officials, and PSE&G representatives. The PSE&G Linden LPG Storage Plant has around-the-clock communications capability with appropriate Linden OEM officials and emergency response organizations (e.g., fire department). This provides a means of notifying the public of an incident, if necessary, as well as facilitating quick response to an incident.

#### 5.0 Planned Changes to Improve Safety

Since the initial development of the 40 CFR Part 68 Risk Management Program at the Linden LPG Plant, PSE&G has implemented several facility enhancements that represent a high level of commitment to accidental release risk management: (1) remotely-monitored security system, (2) LP-gas release detection system, (3) fire detection system for the LPG storage and transfer process, (4) LPG smart transfer hoses, (5) electric generator and (6) static ground signal system have been installed and recently-commissioned. These features, combined with continually-enhanced operating procedures, training, and response coordination activities all contribute to the enhanced future safety of the facility.